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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,759	08/24/2001	Klas Carlberg	2380-188	8910
7590 08/09/2005 NIXON & VANDERHYE P.C. 1100 North Glebe Road, 8th Floor Arlington, VA 22201			EXAMINER NGUYEN, BINH QUOC	
			ART UNIT 2664	PAPER NUMBER

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,759

Applicant(s)

CARLBERG ET AL.

Examiner

Binh Q. Nguyen

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/24/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/27/01, 01/27/03, 12/29/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-22, 24-32, 34-57, 59-67 and 69-70 are rejected under 35 U.S.C. 102(e) as being anticipated by *Juntumaa et al* the US Patent No: (US 6,430,189) hereinafter referred to as *Juntumaa*.

Regarding claims 1, and 36; *Juntumaa* teaches limitations of a node, and a method of a data communications network wherein a connection handling functionality is distributed among plural processors of a processor cluster in accordance with at least one of the following:

- (1) infrastructure data for the connection handling functionality is distributed among the plural processors of the processor cluster;
- (2) resource handling data is partitioned among the plural processors of the processor cluster (*see Fig. 4, col. 5, lines 35-45*); and
- (3) connection data is created on a selected processor of the processor cluster when an on demand connection is established at the selected processor.

Regarding claims 2, and 37; *Juntumaa* teaches limitations of the apparatus of claim 1, and the method of claim 36, wherein the processor cluster handles AAL2 connections (*see col. 3, lines 63-67*).

Regarding claims 3, and 38; *Juntumaa* teaches limitations of the apparatus of claim 1, and the method of claim 36, wherein the processor cluster includes a predistributor which routes incoming signaling messages to an appropriate processor of the processor cluster (*see col. 3, lines 25-42, and col. 5, lines 35-65, Resource Manager means predistributor*).

Regarding claims 4, and 39; *Juntumaa* teaches limitations of the apparatus of claim 3, and the method of claim 38, wherein the predistributor resides on one of the plural processors of the cluster which handles connections (*see Fig 4 & 5, col. 3, lines 25-42, and col. 5, lines 35-65*).

Regarding claims 5, and 40; *Juntumaa* teaches limitations of the apparatus of claim 3, and the method of claim 38, wherein a processor of the node which does not handle connections serves as the predistributor (*see col. 3, lines 20-24*).

Regarding claims 6, and 41; *Juntumaa* teaches limitations of the apparatus of claim 1, and the method of claim 36, wherein infrastructure data for the connection handling functionality is distributed among the plural processors of the processor cluster (*see col. 1, lines 41-52*).

Regarding claims 7, and 42; *Juntumaa* teaches limitations of the apparatus of claim 6, and the method of claims 41, further comprising an administrator processor which distributes the infrastructure data among the plural processors of the processor cluster (*see col. 3, lines 43-55*).

Regarding claims 8, and 43; *Juntumaa* teaches limitations of the apparatus of claim 1, and the method of claim 36, wherein resource handling data is partitioned among the plural processors of the processor cluster (*see col. 5, lines 35-45*).

Regarding claims 9, and 44; *Juntumaa* teaches limitations of the apparatus of claim 1, and the method of claim 36, wherein resource handling data is dynamically partitioned among the plural processors of the processor cluster (*see col. 5, lines 35-45*).

Regarding claims 10, and 45; *Juntumaa* teaches limitations of the apparatus of claim 1, and the method of claim 36, wherein connection data is created on a selected processor of the processor cluster when an on demand connection is established at the selected processor (*see col. 3, lines 43-54*).

Regarding claims 11, and 46; *Juntumaa* teaches limitations of the apparatus of claim 1, and the method of claim 36, wherein when a connection is to be set up to another node, an instance of a connection object is established in a selected one of the processors of the cluster, and wherein the connection object both reserves and activates resources of the node (*see col. 5, lines 35-54*).

Regarding claims 12, and 47; *Juntumaa* teaches limitations of the apparatus of claim 11, and the method of claim 46, wherein the connection object reserves a resource of the node by communicating with an instance of a resource control object executed by a processor of the cluster (*see col. 5, lines 35-65*).

Regarding claims 13, and 48; *Juntumaa* teaches limitations of the apparatus of claim 12, and the method of claim 47, wherein the instance of the resource control object is executed by a same processor which executes the connection object (*see col. 7, lines 43-61*).

Regarding claims 14, and 49; *Juntumaa* teaches limitations of the apparatus of claim 12, and the method of claim 48, wherein the instance of the resource control object is executed by a

Art Unit: 2664

different processor than the processor which executes the connection object (*see col. 5, lines 35-65, col.6 lines 44-49, and col. 7, lines 43-61*).

Regarding claims 15, and 50; *Juntumaa* teaches limitations of the apparatus of claim 12, and the method of claim 46, wherein the connection object determines which instance of a link resource control object with which to communicate by communicating with a routing object executed by a processor of the cluster (*see col. 5, lines 35-65*).

Regarding claims 16, and 51; *Juntumaa* teaches limitations of the apparatus of claim 11, and the method of claim 50, wherein the connection object activates a resource of the node by communicating with an instance of a resource user plane object executed by a processor of the cluster (*see col. 5, lines 35-45*).

Regarding claims 17, and 52; *Juntumaa* teaches limitations of the apparatus of claim 16, and the method of claim 51, wherein the instance of a resource user plane object is executed by a same processor which executes the connection object (*see col. 5, lines 45-50*).

Regarding claims 18, and 53; *Juntumaa* teaches limitations of the apparatus of claim 12, and the method of claim 51, wherein the instance of the resource user plane object is executed by a different processor than the processor which executes the connection object (*see col. 5, lines 35-65*).

Regarding claims 19, and 54; *Juntumaa* teaches limitations of the apparatus of claim 11, and the method of claim 46, wherein in setting up the connection to the another node, the connection object uses a signaling object to send a connection establish signaling message to the another node (*see col. 1, lines 56-64*).

Regarding claims 20, and 55; *Juntumaa* teaches limitations of the apparatus of claim 19, and the method of claim 54, wherein the connection object communicates with a signaling object executed by a processor of the cluster in order to send the connection establishment signaling message to the another node (*see col. 1, lines 56-64 and see col. 5, lines 35-65*).

Regarding claims 21, and 56; *Juntumaa* teaches limitations of a node, and a method of operating a node of a data communications network wherein a connection handling functionality is distributed among plural processors of a processor cluster, wherein the node has plural signaling links connected thereto, and wherein the processor cluster includes a predistributor for each of the plural signaling links, the predistributor serving to route incoming signaling messages to an appropriate processor of the processor cluster (*see col. 3, lines 25-42, and see col. 5, lines 35-65*).

Regarding claims 22, and 57; *Juntumaa* teaches limitations of the apparatus of claim 21, and the method of claim 56, wherein for a path incoming to the node the processor cluster has an instance of a resource control path object executed by one of the processors of the cluster, and wherein the instance of the resource control path object handles signaling for the path (*see col. 5, lines 39-50*) or for a unique connection identifier within the path, and wherein the predistributor distributes certain signaling messages or indications concerning the path to the instance of the resource control path object.

Regarding claims 24, and 59; *Juntumaa* teaches limitations of the apparatus of claim 22, and the method of claim 57, further comprising an instance of a resource control signaling relation object representing plural paths having a signaling relation, and wherein the predistributor distributes certain signaling messages (*see col. 5, lines 35-65*) or indications

Art Unit: 2664

concerning the signaling relation path to the instance of the resource control signaling relation object.

Regarding claims 25, and 60; *Juntumaa* teaches limitations of a node, and the method of claims 56 of a data communications network wherein a connection handling functionality is distributed among plural processors of a processor cluster, wherein the node has a signaling link connected thereto (*see col. 1, lines 16-29*), and wherein the processor cluster includes a predistributor for the signaling link, the predistributor serving to route an incoming signaling message to an appropriate processor of the processor cluster (*see col. 3, lines 25-42, and see col. 5, lines 35-65*), and wherein the predistributor comprises at least one distribution table which is used for routing the incoming signaling message (*see col. 2, lines 29-42, and see col. 3, lines 63-67, and see col. 7, lines 20-40*).

Regarding claims 26, and 61; *Juntumaa* teaches limitations of the apparatus of claim 25, and the method of claim 60, wherein the predistributor has a distribution table which uses at least one of the following for routing the incoming signaling message: destination signaling association identifier (DSAI); served user generated reference (SUGR); signaling link identity; path identity (*see col. 2, lines 15-42 for path identity*).

Regarding claims 27, and 62; *Juntumaa* teaches limitations of the apparatus of claim 26, and the method of claim 60, wherein the predistributor has four distribution tables, and wherein each of the following are utilized by at least one of the four distribution tables for routing the incoming signaling message: destination signaling association identifier (DSAI); served user generated reference (SUGR); signaling link identity; path identity (*see table 1, col.4, lines 1-32*).

Regarding claims 28, and 63; *Juntumaa* teaches limitations of a node, and a method of operating a node of a data communications network wherein a connection handling functionality is distributed among plural processors of a processor cluster (*see col. 1, lines 30-40*), wherein the node has plural resources, and wherein control of the plural resources is partitioned among the plural processors of the processor cluster (*see col. 1, lines 41-52*).

Regarding claims 29, and 64; *Juntumaa* teaches limitations of the apparatus of claim 28, and the method of claim 63, wherein the node has plural end resources, and wherein for each end resource an instance of an end resource control object is executed by a processor of the processor cluster (*see col. 6, lines 20-28 subscriber means end*).

Regarding claims 30, and 65; *Juntumaa* teaches limitations of the apparatus of claim 29, and the method of claim 63 further comprising plural instances of end resource control objects corresponding to the plural end resources of the node, and wherein the plural instances of end resource control objects are partitioned among the plural processors of the processor cluster (*see col. 4, lines 38-44*).

Regarding claims 31, and 66; *Juntumaa* teaches limitations of the apparatus of claim 28, and the method of claim 63, wherein the node has plural link resources, and wherein control of the plural link resources units is partitioned among the plural processors of the processor cluster (*see col. 4, lines 33-37*).

Regarding claims 32, and 67; Juntumaa teaches limitations of the apparatus of claim 31, and the method of claim 66, wherein for each of the plural link resources there is a path incoming to the node, and wherein the processor cluster has an instance of a resource control path object executed by one of the processors of the cluster (*see col. 1, lines 41-52*), and wherein the instance of the resource control path object handles signaling for the path or for a unique connection identifier within the path (*see col. 4, lines 33-37*).

Regarding claims 34, and 69; Juntumaa teaches limitations of the apparatus of claim 32, and the method of claim 67, wherein the node has plural instances of resource control path objects corresponding to the plural link resources, and wherein the plural instances of resource control path objects are partitioned among the plural processors of the processor cluster (*see col. 52, lines 35-54*).

Regarding claims 35, and 70; Juntumaa teaches limitations of the apparatus of claim 32, and the method of claim 69, further comprising an instance of a resource control signaling relation object representing plural paths having a signaling relation (*see col. 6, lines 50-65, and col. 7, lines 20-40*).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 23, 33, 58, and 68** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Juntumaa et al* the US Patent No: (US 6,430,189), in view of *Benedyk et al* the US Pub No: (2002/0105969) as applied to the claims above, hereinafter referred to as *Juntumaa, and Benedyk* respectively.

Regarding claims 23, 33, 58, and 68; *Juntumaa* teaches the apparatus of claims 22, 33, and method of claims 58, 68, wherein the path is an AAL2 (*see col. 3, lines 63-67*).

Juntumaa fails to teach an AAL2 path handling Q.2630.1 signaling.

However, *Benedyk* teaches an AAL2 path handling Q.2630.1 signaling (*see User Part AAL2, ATM, and elements; 602, 604 of Fig. 6, and also see paragraph [0004]*).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize Q.2630.1 signaling for AAL2 in order to be standards compliant.

Art Unit: 2664

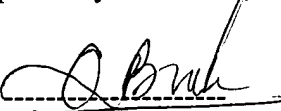
Contact Information


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh Q. Nguyen whose telephone number is 571-272-8563. The examiner can normally be reached on M-F: 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

By: 
Binh Q. Nguyen
Patent Examiner
07/27/2005


WELLINGTON CHIN
SENIOR PATENT EXAMINER